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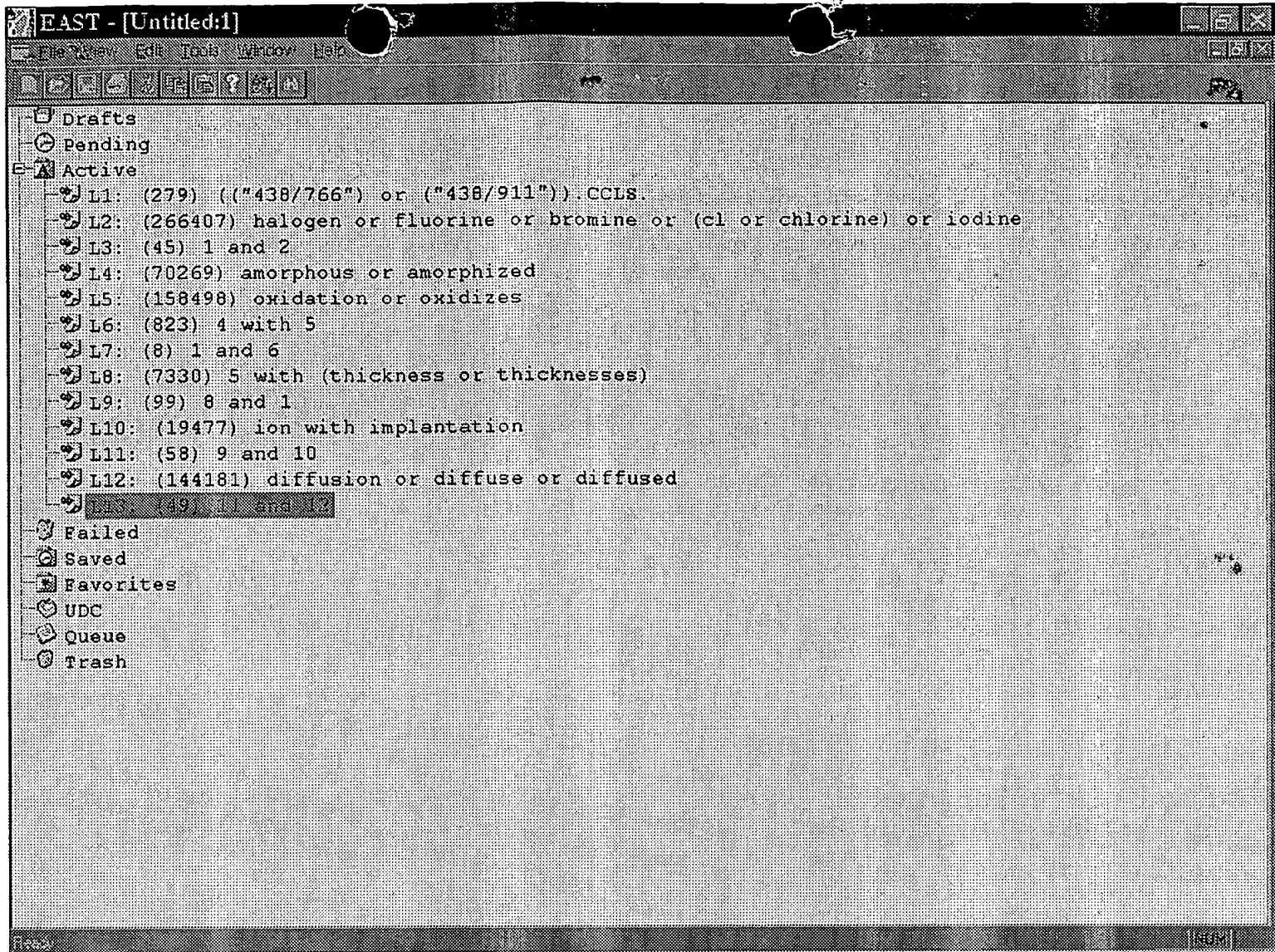
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2	L2	163	("438/766").CCLS.	USPAT
3	L3	25	1 and 2	USPAT



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L1: (279) (("438/766") or ("438/911")).CCLS.

L2: (266407) halogen or fluorine or bromine or (cl or chlorine) or iodine

L3: (45) 1 and 2

L4: (70269) amorphous or amorphized

L5: (158498) oxidation or oxidizes

L6: (823) 4 with 5

L7: (8) 1 and 6

L8: (7330) 5 with (thickness or thicknesses)

L9: (99) 8 and 1

L10: (19477) ion with implantation

L11: (58) 9 and 10

L12: (144181) diffusion or diffuse or diffused

L13: (49) 11 and 12

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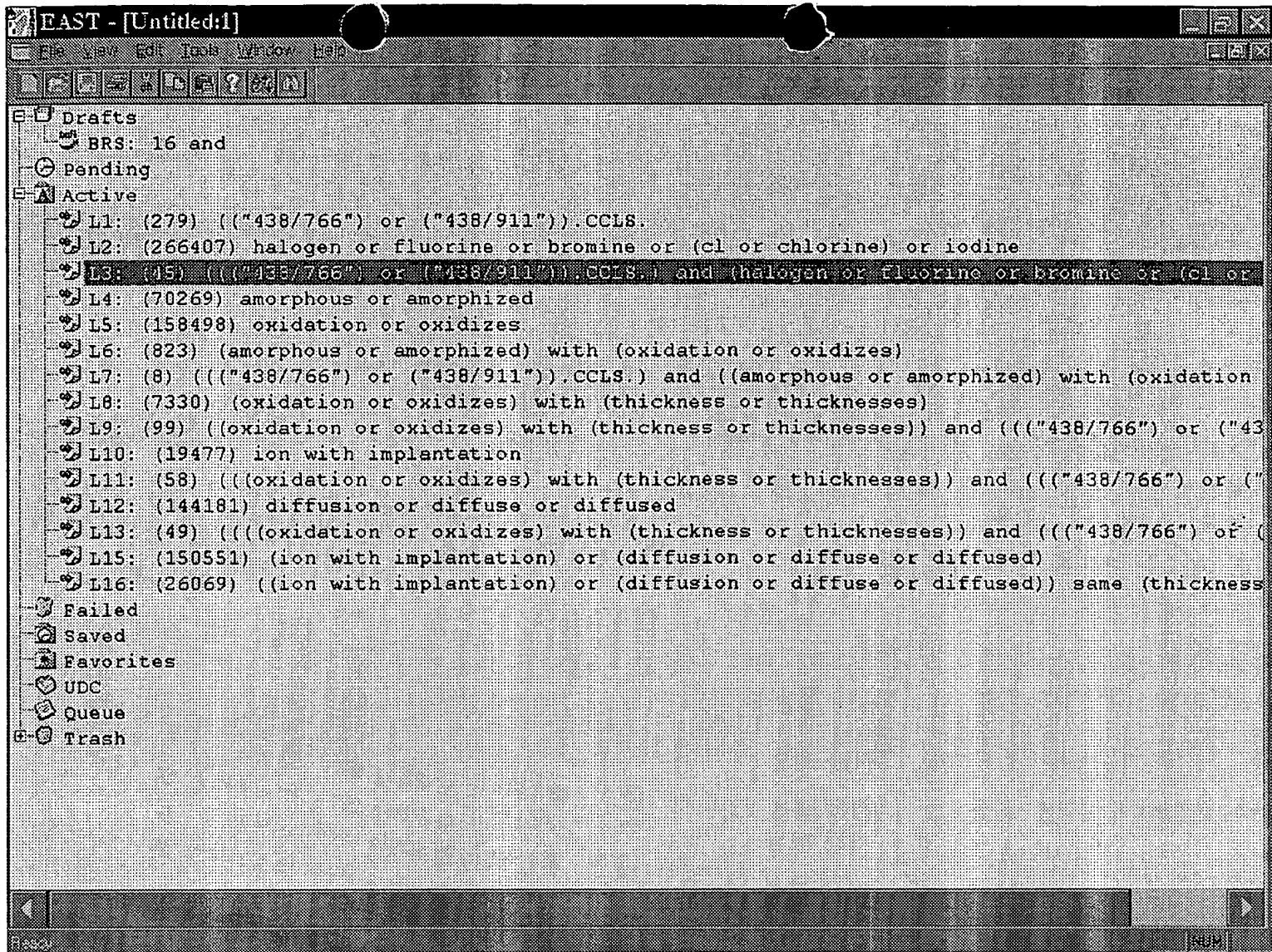
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3	BRS	L3	45	1 and 2
4	BRS	L4	70269	amorphous or amorphized
5	BRS	L5	158498	oxidation or oxidizes
6	BRS	L6	823	4 with 5
7	BRS	L7	8	1 and 6
8	BRS	L8	7330	5 with (thickness or thicknesses)
9	BRS	L9	99	8 and 1
10	BRS	L10	19477	ion with implantation
11	BRS	L11	58	9 and 10
12	BRS	L12	144181	diffusion or diffuse or diffused
13	BRS	L13	49	11 and 12

	Type	L #	Hits	Search Text
1	IS&R		279	((("438/766") or ("438/911"))).CCLS.
2	BRS		266407	halogen or fluorine or bromine or (cl or chlorine) or iodine
3	BRS		45	((("438/766") or ("438/911"))).CCLS.) and (halogen or fluorine or bromine or (cl or chlorine) or iodine)
4	BRS		70269	amorphous or amorphized
5	BRS		158498	oxidation or oxidizes
6	BRS		823	(amorphous or amorphized) with (oxidation or oxidizes)
7	BRS		8	((("438/766") or ("438/911"))).CCLS.) and ((amorphous or amorphized) with (oxidation or oxidizes))
8	BRS		7330	(oxidation or oxidizes) with (thickness or thicknesses)
9	BRS		99	((oxidation or oxidizes) with (thickness or thicknesses)) and ((("438/766") or ("438/911"))).CCLS.)
10	BRS		19477	ion with implantation
11	BRS		58	((((oxidation or oxidizes) with (thickness or thicknesses)) and ((("438/766") or ("438/911"))).CCLS.)) and (ion with implantation)
12	BRS		144181	diffusion or diffuse or diffused
13	BRS		49	(((((oxidation or oxidizes) with (thickness or thicknesses)) and ((("438/766") or ("438/911"))).CCLS.)) and (ion with implantation)) and (diffusion or diffuse or diffused)
14	BRS		150551	(ion with implantation) or (diffusion or diffuse or diffused)

	Type	L #	Hits	Search Text
15	BRS		26069	((ion with implantation) or (diffusion or diffuse or diffused)) same (thickness or thicknesses)

	Type	L #	Hits	Search Text	DBs
1	IS&R	L1	279	((("438/766") or ("438/911"))).CCLS.	USPAT
2	BRS	L2	266407	halogen or fluorine or bromine or (cl or chlorine) or iodine	USPAT
3	BRS	L3	45	1 and 2	USPAT
4	BRS	L4	70269	amorphous or amorphized	USPAT
5	BRS	L5	158498	oxidation or oxidizes	USPAT
6	BRS	L6	823	4 with 5	USPAT
7	BRS	L7	8	1 and 6	USPAT

~~1 and 5~~

221589

8 1 and 5  
9 thickness or thicknesses

~~10 8~~

8 5 with (thickness or thicknesses)

9 8 and 1

look at text  
for highlighted  
terms















	Type	L #	Hits	Search Text
1	IS&R		440	((("438/766") or ("438/770") or ("438/911"))).CCLS.
2	BRS		266407	halogen or fluorine or bromine or iodine or (chlorine or Cl)
3	BRS		135	differential adj oxidation
4	BRS		266527	(halogen or fluorine or bromine or iodine or (chlorine or Cl)) <del>or</del> (differential adj oxidation) <i>and</i>
5	BRS		78	((("438/766") or ("438/770") or ("438/911"))).CCLS.) and (halogen or fluorine or bromine or iodine or (chlorine or Cl))
6	BRS		82	((("438/766") or ("438/770") or ("438/911"))).CCLS.) and ((halogen or fluorine or bromine or iodine or (chlorine or Cl)) or (differential adj oxidation))
7	BRS	L49	4	((("438/766") or ("438/770") or ("438/911"))).CCLS.) and (differential adj oxidation)
8	BRS	L50	0	4 and 6
9	BRS	L51	174	438/766
10	BRS	L52	0	51 and 3

halogen &lt;and&gt; oxidation

Refine

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DOC TYPE	VIEW ISSUE TOC	VIEW FULL PAGE	VIEW CITATION
CNF			<p><b><u>Non halogen/antimony flame retardant system for high end IC package</u></b>  Yamaguchi, M.; Shigyo, H.; Yamamoto, Y.; Sudo, S.; Ito, S.  Electronic Components and Technology Conference, 1997. Proceedings., 47th , 1997 , Page(s): 1248 -1253</p>
CNF			<p><b><u>Reflow soldering using selective infrared radiation</u></b>  Sakuyama, S.; Uchida, H.; Watanabe, I.; Natori, K.; Sato, T.  Electronic Manufacturing Technology Symposium, 1995, Proceedings of 1995 Japan International, 18th IEEE/CPMT International , 1996 , Page(s): 393 -396</p>
CNF			<p><b><u>Low thermal budget polycrystalline silicon thin-film transistors fabricated by metal-induced lateral crystallization</u></b>  Kim, T.-K.; Lee, B.-I.; Joo, S.-K.  Device Research Conference Digest, 1998. 56th Annual , 1998 , Page(s): 100 -101</p>
CNF			<p><b><u>Rapid thermal processing of conventionally and electromagnetically cast 100 cm/sup 2/ multicrystalline silicon</u></b>  Sivothythaman, S.; Laureys, W.; de Schepper, P.; Nijs, J.; Mertens, R.  Photovoltaic Specialists Conference, 1996., Conference Record of the Twenty Fifth IEEE , 1996 , Page(s): 621 -624</p>
CNF			<p><b><u>Integrity of gate oxides formed on SIMOX wafers</u></b>  Brown, G.A.; Hosack, H.H.; Joyner, K.; Krull, W.A.  SOI Conference, 1994 Proceedings., 1994 IEEE International , 1994 , Page(s): 73 -74</p>
CNF			<p><b><u>Fabrication of SOI structures by uniform zone melting recrystallization for high voltage ICs</u></b>  Dilhac, J.-M.; Zerrouk, D.; Ganibal, C.; Rossel, P.; Bafleur, M.  Power Semiconductor Devices and ICs, 1996. ISPSD '96 Proceedings., 8th International Symposium on , 1996 , Page(s): 215 -218</p>

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**Application of p-phenylene derivatives as oxidants to the insulating polyethylene**

*Olszynska, J.; Dobroszewski, R.; Sudol, M.*

Properties and Applications of Dielectric Materials, 1988. Proceedings., Second International Conference on Properties and Applications of , 1988 , Page(s): 396 -399 vol.2

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**Characterization and reliability of electrolytic capacitors exposed to halogenated solvents**

*MaSaitis, R.L.; Muller, A.J.; Opila, R.L.; Psota-Kelty, L.A.; Daoud, S.*

Electronic Components and Technology Conference, 1992. Proceedings., 42nd , 1992 , Page(s): 611 -616

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**Development of a hexagonal-shaped rapid thermal processor using a vertical tube**

*Byung Jin Cho; Vandenabeele, P.; Maex, K.*

Semiconductor Manufacturing, IEEE Transactions on Volume: 7 3 , Aug. 1994 , Page(s): 345 -353

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**The low-temperature anodization of silicon in a gaseous plasma**

*Barlow, K.J.; Taylor, S.; Eccleston, W.; Kiermasz, A.*

Electron Devices, IEEE Transactions on Volume: 36 7 , July 1989 , Page(s): 1279 -1285

CNF



**Airborne open path ir laser spectrometer for atmospheric trace gas measurements**

*Podolski, J.*

Lasers and Electro-Optics, 1999. CLEO '99. Summaries of Papers Presented at the Conference on , 1999 , Page(s): 195

CNF



**Shallow trench isolation for advanced ULSI CMOS technologies**

*Nandakumar, M.; Chatterjee, A.; Sridhar, S.; Joyner, K.; Rodder, M.; Chen, I.-C.*

Electron Devices Meeting, 1998. IEDM '98 Technical Digest., International , 1998 , Page(s): 133 -136

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**Ultraclean Wafer Surfaces For High-Performance ULSI Processing**

*Ito, T.*

Semiconductor Manufacturing, 1994. Extended Abstracts of ISSM '94. 1994 International Symposium on , Page(s): 103 -106

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**Vacuum ultraviolet-induced and enhanced oxidation of Si and GaAs in N/sub 2/O**

*Du, Y.C.; Hu, Y.M.; Wang, H.; Yao, X.W.; Zhao, Y.C.; Sun, D.C.; Li, F.M.*

Solid-State and Integrated Circuit Technology, 1995 4th International Conference on , 1995 , Page(s): 674 -676

CNF



**Rapid thermal multiprocessing using multivariable control of circularly symmetric 3 zone lamp**

*Apte, P.P.; Saraswat, K.C.*

VLSI Technology, 1992. Digest of Technical Papers.  
1992 Symposium on , 1992 , Page(s): 52 -53

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**Microstructures and DC critical currents in textured**

**Y-Ba-Cu-oxides**

*Orehotsky, J.; Wisemann, H.; Moodenbaugh, A.R.; Suenaga, M.;  
Wang, H.-G.; Herman, H.*

Magnetics, IEEE Transactions on

Volume: 27 2 4 , March 1991 , Page(s): 914 -916

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**Understanding and implementation of rapid thermal  
technologies for high-efficiency silicon solar cells**

*Rohatgi, A.; Narasimha, S.; Ebong, A.U.; Doshi, P.*

Electron Devices, IEEE Transactions on

Volume: 46 10 , Oct. 1999 , Page(s): 1970 -1977

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**Shallow-junction formation on silicon by rapid thermal  
diffusion of impurities from a spin-on source**

*Usami, A.; Ando, M.; Tsunekane, M.; Wada, T.*

Electron Devices, IEEE Transactions on

Volume: 39 1 , Jan. 1992 , Page(s): 105 -110

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FILE COVERS 1969 TO DATE.

=> halogen

L1 5581 HALOGEN

=> e oxidation +all/ct

E1	12179	BT1	CHEMICAL REACTIONS/CT
E2	32602	-->	OXIDATION/CT
		DA	JANUARY 1969
E3	0	UF	RAPID THERMAL OXIDATION/CT
E4	6983	NT1	COMBUSTION/CT
E5	1370	NT2	COMBUSTION SYNTHESIS/CT
E6	2588	RT	ANODISATION/CT
E7	16190	RT	CORROSION/CT

```

E8      3581      RT  ENVIRONMENTAL DEGRADATION/CT
E9      1082      RT  ISOLATION TECHNOLOGY/CT
E10     1859      RT  NITRIDATION/CT
E11     8850      RT  PASSIVATION/CT
E12     2009      RT  RAPID THERMAL PROCESSING/CT
E13     5226      RT  REDUCTION (CHEMICAL)/CT
E14     14160     RT  SEMICONDUCTOR TECHNOLOGY/CT
E15     16465     RT  SURFACE CHEMISTRY/CT
E16     12382     RT  SURFACE TREATMENT/CT
E17     14050     CC  A8160/CT
E18     9435      CC  A8230/CT
E19     32577     CC  B2550E/CT
E20      0        KT  ANODIC OXIDATION/CT
E21      0        KT  RAPID THERMAL OXIDATION/CT
*****  END  *****

```

=> e gate +all/ct

```

E1      0      -->  GATE/CT
E2     3295     KT  FIELD PROGRAMMABLE GATE ARRAYS/CT
E3      0      KT  GATE ARRAYS/CT
E4      0      KT  GATE TURN-OFF DEVICES/CT
E5     2603     KT  INSULATED GATE BIPOLAR TRANSISTORS/CT
E6     10946     KT  INSULATED GATE FIELD EFFECT TRANSISTORS/CT
E7     1199     KT  JUNCTION GATE FIELD EFFECT TRANSISTORS/CT
E8     5382     KT  SCHOTTKY GATE FIELD EFFECT TRANSISTORS/CT
*****  END  *****

```

=> e6

```

L2     10946  "INSULATED GATE FIELD EFFECT TRANSISTORS"/CT  (3 TERMS)

```

=> d his

(FILE 'HOME' ENTERED AT 18:45:44 ON 30 AUG 2000)

FILE 'INSPEC' ENTERED AT 18:46:14 ON 30 AUG 2000

```

L1     5581  HALOGEN
        E OXIDATION +ALL/CT
        E GATE +ALL/CT
L2     10946  E6

```

=> 11 and 12

```

L3      5  L1 AND L2

```

=> d 1-5 ab

L3 ANSWER 1 OF 5 INSPEC COPYRIGHT 2000 IEE

AB Metal-oxide-semiconductor field effect transistors (MOSFETs), fabricated in a simple Al gate process, have been subjected to rapid thermal annealing cycles of four different types immediately following the gate oxide growth. Fundamental MOS interface properties have been determined and compared as a function of the annealing temperature Tan. The influence of the steady state time tan at high temperature has been studied for a standard cycle; no effect was found for Tan=1200 degrees C and

3shalogen lamps, have been carried out to achieve good contact areas at low depth (0.1  $\mu$ m) as well as n-type channels of MIS transistors. The crystallographic disorder remaining after annealing and its influence on the carrier distribution are discussed. The uniformity of activation has been evaluated by wafer scanning of Hall effect and specific contact resistivity. Finally, characteristics of MIS transistors are given.

L3 ANSWER 3 OF 5 INSPEC COPYRIGHT 2000 IEE

AB A chemical vapor deposition reactor has been designed with tungsten halogen lamps as a source of radiant heat. This rapid thermal CVD system

can be used to fabricate thin layers of semiconductors, metals and insulators by a precise control of thermally driven surface reactions. Radiant heat is used to produce large, yet rapid changes in the temperature of the semiconductor substrate. From a mixture of silane and oxygen gas SiO<sub>2</sub> layers have been fabricated at 700 degrees C. At this elevated temperature deposition rates of 100 Å/sec are obtained. These layers could be deposited on InP substrate with resulting specular surfaces. Optical as well as electrical characterization of these films indicates that the structure is perfectly suited for InP MIS-FET applications.

L3 ANSWER 4 OF 5 INSPEC COPYRIGHT 2000 IEE

AB Rapid thermal processing with **halogen** lamp heating is found to be effective in forming oxide-free titanium silicide. The silicidation reaction is completed within as short a time as 30 sec, and yields stoichiometric titanium disilicide with a resistivity of 14-16  $\mu\Omega\text{-cm}$ . A self-aligned silicidation achieved by oxide side walls combined with a LDD structure produces submicron MOS transistors with 2-3  $\Omega/\text{sq}$  of sheet resistance of source/drain and gate. The gate dielectric integrity and the junction integrity of silicided devices are comparable with those of control devices without silicidation.

L3 ANSWER 5 OF 5 INSPEC COPYRIGHT 2000 IEE

AB The unit described was designed with BUZ 4. SIPMOS transistors to supply low-voltage **halogen** lamps and uses a self-exciting half-bridge circuit. The circuits were designed for **halogen** lamps operating at 24 V/250 W, 24 V/150 W and 12 V/50 W. At rated duty the working frequency is approximately 120 kHz. This high frequency was chosen to keep the winding dimensions as small as possible and also to keep the RFI suppression requirements to a minimum. Efficiency achieved, depending on the power of the lamp, is between 85 and 90%. Weight is reduced to between one tenth and one fifteenth of that of a 50-Hz transformer.

=> **d his**

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L1 5581 HALOGEN  
E OXIDATION +ALL/CT  
E GATE +ALL/CT  
L2 10946 E6  
L3 5 L1 AND L2

=>